

October 2, 2001

Archie Kappel  
Aisin Drivetrain, Inc.  
1001 Industrial Way  
Crothersville, IN 47229

Re: Registered Construction and Operation Status  
071-14536-00030

Dear Mr. Kappel:

Aisin Drivetrain, Inc. was issued a registration on December 15, 2000 for a transmission manufacturing plant located at 1001 Industrial Way, Crothersville, IN 47229. A application requesting a revision was received by the Office of Air Quality on June 12, 2001. The application was made to add an aluminum anodizing tank, with particulate emissions controlled by a packed bed fume scrubber rated at 99% efficiency.

Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that your emission source remains classified as registered. This emission source consists of the following facilities:

- (a) Thirteen (13) natural gas fired rooftop furnaces, identified as RTF-D1, RTF-D2, RTF-D3, RTF-D4, RTF-D5, RTF-D6, RTF-F1, RTF-F2, RTF-D9, RTF-D10, RTF-D11, RTF-D12 and RTF-D13, each rated at 0.570 MMBtu/hr;
- (b) One (1) natural gas fired brazing furnace, identified as ATHT 003, rated at 0.635 MMBtu/hr;
- (c) Four (4) cold cleaner degreasing operations, identified as ATCL 004, ATCL 005, ATCL 006 and ATCL 014;
- (d) Two (2) conveyORIZED degreasing operations, identified as ATCL 009 and ATCL 008;
- (e) Four (4) metal inert gas (MIG) welding stations, identified as ATWE 001, ATWE 003, ATWE 011 and ATWE 012, with a maximum hourly consumption of 2.75 pounds of wire per station;
- (f) Three (3) process water cooling towers, identified as CT#1, CT#2 and CT#3;
- (g) Three (3) water-based alkaline washing stations, washing metal parts, designated as ATCL 001, ATCL 002 and ATCL 003. ATCL 002 and ATCL 003 are connected to filter units;
- (h) Four (4) press stations, designated as ATPR 001, ATPR 002, ATPR 003 and ATPR 004;
- (i) One (1) flushing machine, designated as ATZM 001;
- (j) Two (2) power shift machines (testers), designated as ATTE 001 and ATTE 002;
- (k) One (1) air leak tester, designated as ATZM 003;

- (l) One (1) paint booth connected to dry filters, method of application is air atomization, touch-up coating transmission parts with low gloss black paint or similar coating. The stack has a height of 33 feet, diameter of 14 inches and a gas flow rate of 2700 actual cubic feet per minute (acfm);
- (m) One (1) ATF machine, designated as ATZM 002;
- (n) One (1) in-line pneumatic compressed air dryer;
- (o) Ten (10) machine centers, designated as ATMM 001, ATMM 002, ATMM 003, ATMM 004, ATMM 005, ATMM 006, ATMM 007, ATMM 008, ATMM 009, and ATMM 010. Machine centers ATMM 001 and ATMM 002 are connected to an oil and dust collector;
- (p) One (1) 0.01 MMBtu/hr natural gas rooftop furnace, designated as RTF-B1. The stack has a height of 23 feet and a diameter of 4 inches;
- (q) Two (2) 0.1 MMBtu/hr natural gas propeller unit heaters, designated as PUH-B1 and PUH-B2. Each stack has a height of 33 feet and a diameter of 4 inches;
- (r) One (1) 0.3 MMBtu/hr natural gas water heater, designated as GWH#1. The stack has a height of 33 feet and a diameter of 5 inches;
- (s) One (1) 0.4 MMBtu/hr direct-fired natural gas air make-up unit, designated as DF AMU-A1;
- (t) Six (6) 0.8 MMBtu/hr natural gas rooftop furnaces, designated as RTF-A1, RTF-A2, RTF-A3, RTF-A4, RTF-A5, RTF-A6. Each stack has a height of 33 feet and a diameter of 12 inches;
- (u) Nine (9) roof top units, identified as C-1 to C-9, natural gas fired with a heat input capacity of 0.57 MMBtu per hour, each;
- (v) Six (6) propeller unit heaters, identified as D-1 to D-6, natural gas fired with a heat input capacity of 0.4 MMBtu per hour, each;
- (w) One (1) continuous belt brazing furnace, identified as ATHT 002, natural gas fired with a heat input capacity of 0.571 MMBtu/hr, exhausting to a stack BF-1;
- (x) Six (6) degreasers for washing, cleaning, and degreasing steel metal parts, identified as ATCL 004 to 009, uses water based alkaline solvent with a consumption of 0.125 gallons per day, each. All of these degreasers are controlled by a mist collector, exhausting in the plant;
- (y) One (1) arc spraying machine to spray copper brazing filler metal, identified as ATZM 017 with a maximum capacity of processing sub-assemblies of 476 pounds per hour. Particulate matter emissions are controlled by a dust collector with a gas flow rate of 4500 acfm, filter area of 16.0 ft<sup>2</sup>, and air to cloth ratio of 0.918, exhausting to a stack WF-1;
- (z) Four (4) MIG welders, identified as ATWE 001 to 003 and ATWE 005 with a maximum consumption of wire per station 2.75 and 8.25 pound per hour, respectively, exhausting inside the plant;
- (aa) Five (5) lathe machines for machining, identified as ALA 002 to 006, connected to oil and dust collector, exhausting inside the plant;
- (bb) Miscellaneous equipment consisting of two (2) air leak testers, identified as ATTE 004 and 005, one (1) helium leak tester, one (1) performance tester, identified as ATTE 008, one (1) run out

gauge, identified as ATTE 007, two (2) balance checkers, identified as ATBA 001 and 002, one (1) rivet press machine, identified as ATPR 008, one (1) shim selector, identified as ATZM 012, three (3) stamping presses, identified as ATPR 009 to 011, one (1) coil feeder, identified as ATZM 011, one (1) bender for blade ends, identified as ATZM 015, one (1) shim selector, identified as ATZM 012, one (1) oil filler, identified as ATZM 013, one (1) pallet gauge, identified as ATZQ 006, and one (1) ID stamp maker, identified as ATZM 014.

- (cc) One (1) aluminum anodizing tank, with particulate emissions controlled by a packed bed fume scrubber rated at 99% efficiency.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
  - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
2. Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
  - (a) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (1) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
    - (2) The solvent is agitated; or
    - (3) The solvent is heated.
  - (b) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
  - (c) Provide a permanent, conspicuous label which lists the operating requirements outlined in Condition 3.
  - (d) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
  - (e) Equip the degreaser with one (1) of the following control devices if the solvent volatility is

greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):

- (1) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (2) A water cover when solvent is used is insoluble in, and heavier than, water.
  - (3) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
3. Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
  - (a) Close the cover whenever articles are not being handled in the degreaser.
  - (b) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (c) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.
4. Pursuant to 326 IAC 8-3-7(a) (Conveyorized Degreaser Operation and Control), the owner or operator of a conveyorized degreaser shall ensure that the following control equipment requirements are met:
  - (a) Equip the degreaser's entrances and exits with downtime covers which are closed when the degreaser is not operating;
  - (b) Equip the degreaser with the following switches:
    - (1) A condenser flow switch and thermostat which shuts off sump heat if condenser coolant stops circulating or becomes too warm.
    - (2) A spray system switch which shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).
    - (3) A vapor level control thermostat which shuts off sump heat when vapor level rises more than ten (10) centimeters (four (4) inches).

- (c) Equip the degreaser with entrances and exits which silhouette workloads in such a manner that the average clearance between the articles and the degreaser opening is either less than ten (10) centimeters (four (4) inches) or less than ten percent (10%) of the width of the opening.
  - (d) Equip the degreaser with a drying tunnel, rotating or tumbling basket, or other equipment which prevents cleaned articles from carrying out solvent liquid or vapor.
  - (e) Equip the degreaser with a permanent, conspicuous label which lists the operating requirements outlined in Condition 5.
  - (f) Equip the degreaser with one (1) of the following control devices:
    - (1) A refrigerated chiller.
    - (2) A carbon adsorption system with ventilation which, with the downtime covers open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air to solvent interface area, and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.
    - (3) Other systems with demonstrated equivalent or better control as those outlined above. Such systems shall be submitted to the U.S. EPA as a SIP revision.
5. Pursuant to 326 IAC 8-3-7(b) (Conveyorized Degreaser Operation and Control), the owner or operator of a conveyorized degreaser shall ensure that the following operating requirements are met:
- (a) Minimize solvent carryout emissions by the following:
    - (1) Racking articles to allow complete drainage.
    - (2) Maintaining the vertical conveyor speed at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute).
  - (b) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.
  - (c) Repair solvent leaks immediately or shut down the degreaser if leaks cannot be repaired immediately.
  - (d) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meter per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser opening unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.
  - (e) Prohibit the use of workplace fans near the degreaser opening.
  - (f) Prohibit visually detectable water in the solvent exiting the water separator.
  - (g) Cover entrances and exits at all times except when processing workloads through the degreaser.

6. Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations), the particulate matter emissions from the arc spraying machine, the copper brazing filler metal operation, the MIG welding stations and the aluminum anodizing tank shall be limited by the following equation for process weight rates up to sixty thousand (60,000) pounds per hour:

$$E = 4.10P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour,} \\ P = \text{process weight in tons per hour}$$

7. Any change or modification that may increase actual VOC usage at the paint booth to 15 pounds per day or more shall obtain OAQ approval before such changes can take place.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Compliance Data Section  
Office of Air Quality  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

This registration supersedes all previous air approvals issued to this source. The source may operate according to 326 IAC 2-5.5.

Any change or modification which may increase the potential pollutant emissions to 25 tons per year or more from the equipment covered in this registration must be approved by the Office of Air Quality (OAQ) before such change may occur.

Sincerely,

Original signed by

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

ARD

cc: File - Jackson County  
Jackson County Health Department  
Air Compliance Section Inspector - Joe Foyst  
Compliance Data Section - Karen Nowak  
Administrative and Development - Janet Mobley  
Technical Support and Modeling - Michele Boner

<b>Registration Annual Notification</b>
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This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3).

<b>Company Name:</b>	Aisin Drivetrain, Inc.
<b>Address:</b>	1001 Industrial Way
<b>City:</b>	Crothersville, IN 47229
<b>Authorized individual:</b>	Archie Kappel
<b>Phone #:</b>	(812) 793-2427
<b>Registration #:</b>	071-14536-00030

I hereby certify that Aisin Drivetrain, Inc. is still in operation and is in compliance with the requirements of Registration 071-14536-00030.

<b>Name (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

# Indiana Department of Environmental Management Office of Air Quality

## Technical Support Document (TSD) for a Registration

### Source Background and Description

<b>Source Name:</b>	<b>Aisin Drivetrain, Inc.</b>
<b>Source Location:</b>	<b>1001 Industrial Way, Crothersville, IN 47229</b>
<b>County:</b>	<b>Jackson</b>
<b>SIC Code:</b>	<b>5013</b>
<b>Old Registration No.:</b>	<b>071-12840-00030</b>
<b>Old Registration Issuance Date:</b>	<b>December 15, 2000</b>
<b>Application No.:</b>	<b>071-14536-00030</b>
<b>Reviewer:</b>	<b>Allen R. Davidson</b>

On June 12, 2001, the Office of Air Quality (OAQ) received an application from Aisin Drivetrain, Inc. relating to the addition of an aluminum anodizing tank, with particulate emissions controlled by a packed bed fume scrubber rated at 99% efficiency.

### History

Aisin Drivetrain, Inc. was issued a registration for a transmission manufacturing plant on December 15, 2000. This application is the first received since that date.

### Enforcement Issues

There are no enforcement actions pending against this emission source.

### Recommendation

The staff recommends to the Commissioner that the application be approved as a registration. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on June 12, 2001.

### Emission Calculations

See Appendix A of the TSD for Registration 071-12840-00030 for detailed emissions calculations of existing facilities. See Appendix A of this document for detailed emissions calculations of the anodizing tank. (1 page)

### Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

The following table reflects the existing source potential to emit. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit:



Pollutant	Potential To Emit (tons/year)
PM	11.12
PM-10	11.67
SO <sub>2</sub>	0.06
VOC	9.83
CO	8.04
NO <sub>x</sub>	9.57

HAP's	Potential To Emit (tons/year)
Methyl ethyl ketone	0.09
Toluene	0.22
Xylene	0.03
Glycol ether	0.18
TOTAL	0.51

The potential to emit particulate matter (PM) and volatile organic compounds (VOC) is less than 25 tons per year, but the potential to emit particulate matter is greater than five tons per year and the potential to emit VOC is greater than ten tons per year. Therefore, the existing source was issued a registration under 326 IAC 2-5.5.

The revision's potential to emit is follows:

Pollutant	Potential To Emit (tons/year)
PM	0.65
PM-10	< 0.65
SO <sub>2</sub>	0
VOC	0
CO	0
NO <sub>x</sub>	0

HAP	Potential To Emit (tons/year)
TOTAL	None

The potential to emit (as defined in 326 IAC 2-7-1(29)) particulate matter (PM) will remain less than 25 tons per year, but the potential to emit particulate matter is greater than five tons per year. Therefore, the source remains classifiable as a registration under 326 IAC 2-5.5.

This existing source is not a major source for Prevention of Significant Deterioration, 326 IAC 2-2. No attainment regulated pollutant has the potential to emit at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

### County Attainment Status

The source is located in Jackson County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

Jackson County has been classified as attainment or unclassifiable for all pollutants. Therefore, emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

### **Federal Rule Applicability**

There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14 and 40 CFR 63) applicable to this source. NESHAP Subpart T is not applicable since the degreasers do not use halogenated solvents.

### **State Rule Applicability - Entire Source**

#### **326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)**

This source is not subject to 326 IAC 2-4.1-1 (New Source Toxics Control). The source was existing as of July 27, 1997. Also, it does not have potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAPs.

#### **326 IAC 2-6 (Emission Reporting)**

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it does not have the potential to emit more than one hundred (100) tons per year of any pollutant specified in the rule.

#### **326 IAC 5-1 (Visible Emissions Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

### **State Rule Applicability - Existing Facilities**

The rule applicability of existing facilities will not change. The regulatory analysis from Registration 071-12840-00030 appears below for convenience:

#### **326 IAC 8-2-9 (Miscellaneous Metal Coating)**

*Pursuant to 071-5231-00030, issued on March 12, 1996, volatile organic compounds (VOC) from the paint booth shall be kept below fifteen (15) pounds per day. Therefore, the requirements of 326 IAC 8-2-9 (Miscellaneous metal coatings) will not apply.*

#### **326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control)**

*Pursuant to 071-9321-00030, issued on April 7, 1998, the owner or operator of a cold cleaner degreaser facility identified as ATCL 004 to 007 shall ensure that the following control equipment requirements are met:*

- (1) *Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:*

- (A) *The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));*
- (B) *The solvent is agitated; or*
- (C) *The solvent is heated.*
- (2) *Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.*
- (3) *Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).*
- (4) *The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.*
- (5) *Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):*
  - (A) *A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.*
  - (B) *A water cover when solvent is used is insoluble in, and heavier than, water.*
  - (C) *Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.*

**326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control)**

*Pursuant to 071-9321-00030, issued on April 7, 1998, the owner or operator of a cold cleaning facility identified as ATCL 004 to 007 shall ensure that the following operating requirements are met:*

- (1) *Close the cover whenever articles are not being handled in the degreaser.*
- (2) *Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.*
- (3) *Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.*

**326 IAC 8-3-7(a) (Conveyorized Degreaser Operation and Control)**

*Pursuant to 071-9321-00030, issued on April 7, 1998, the owner or operator of a conveyorized degreaser identified as ATCL 008 shall ensure that the following control equipment requirements are met:*

- (1) *Equip the degreaser's entrances and exits with downtime covers which are closed when the degreaser is not operating;*
- (2) *Equip the degreaser with the following switches:*
  - (A) *A condenser flow switch and thermostat which shuts off sump heat if condenser coolant stops circulating or becomes too warm.*
  - (B) *A spray system switch which shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).*
  - (C) *A vapor level control thermostat which shuts off sump heat when vapor level rises more than ten (10) centimeters (four (4) inches).*
- (3) *Equip the degreaser with entrances and exits which silhouette workloads in such a manner that the average clearance between the articles and the degreaser opening is either less than ten (10) centimeters (four (4) inches) or less than ten percent (10%) of the width of the opening.*
- (4) *Equip the degreaser with a drying tunnel, rotating or tumbling basket, or other equipment which prevents cleaned articles from carrying out solvent liquid or vapor.*
- (5) *Equip the degreaser with a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).*
- (6) *Equip the degreaser with one (1) of the following control devices:*
  - (A) *A refrigerated chiller.*
  - (B) *A carbon adsorption system with ventilation which, with the downtime covers open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air to solvent interface area, and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.*
  - (C) *Other systems of demonstrated equivalent or better control as those outlined in clause (A) or (B). Such systems shall be submitted to the U.S. EPA as a SIP revision.*

**326 IAC 8-3-7(b) (Conveyorized Degreaser Operation and Control)**

*Pursuant to 071-9321-00030, issued on April 7, 1998, the owner or operator of a conveyorized degreaser identified as ATCL 008 shall ensure that the following operating requirements are met:*

- (1) *Minimize solvent carryout emissions by the following:*
  - (A) *Racking articles to allow complete drainage.*
  - (B) *Maintaining the vertical conveyor speed at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute).*
- (2) *Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.*
- (3) *Repair solvent leaks immediately or shut down the degreaser if leaks cannot be repaired immediately.*

- (4) *Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meter per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser opening unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration [requirements].*
- (5) *Prohibit the use of workplace fans near the degreaser opening.*
- (6) *Prohibit visually detectable water in the solvent exiting the water separator.*
- (7) *Cover entrances and exits at all times except when processing workloads through the degreaser.*

**326 IAC 6-3-2 (Particulate Emissions Limitations)**

- (a) *Pursuant to 071-9321-00030, issued on April 7, 1998, the particulate matter emissions from the arc spraying machine for copper brazing filler metal operation is subject to 326 IAC 6-3-2. Pursuant to 326 IAC 6-3-2, the particulate matter emissions from the arc spraying machine for copper brazing filler metal operation shall comply with the following equation.*

$$E = 4.10P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour,} \\ P = \text{process weight in tons per hour}$$

- (b) *The particulate matter (PM) from the four (4) metal inert gas welding stations shall be limited by the following:*

*Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:*

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

**State Rule Applicability - Aluminum Anodizing Tank**

**326 IAC 6-3-2 (Particulate Emissions Limitations)**

This facility is subject to 326 IAC 6-3-2. Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations), particulate matter (PM) emissions shall be limited by the following equation for process weight rates up to sixty thousand (60,000) pounds per hour:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

For a process weight rate of 0.3 tons per hour, this equation provides an emission limit of 1.83 pounds per hour. The control equipment is not required in order to comply with this limit.

**Conclusion**

The construction and operation of these facilities shall be subject to the conditions of the attached registration, No 071-14536-00030.

## Appendix A: Emissions Calculations

**Company Name:** Aisin Drivetrain, Inc.  
**Address City IN Zip:** 1001 Industrial Way, Crothersville, IN 47229  
**ID:** 071-14536-00030  
**Reviewer:** Allen R. Davidson  
**Date:** 10/02/01

There are no emission factors in EPA document AP-42 for sulfuric acid anodizing.  
AP-42 expressly states that chromic acid anodizing emission factors are not suitable.  
The manufacturer has supplied estimates of sulfuric acid mist emissions as follows:

$$F = 0.1675 * (100\% - E) * I * W$$
$$= 67 \text{ gram/hr} = 0.15 \text{ lb/hr}$$

where E = 0% electrical efficiency of the anodize process  
I = 2000 Amps applied  
w = 20% Weight fraction H<sub>2</sub>SO<sub>4</sub>

$$\frac{0.15 \text{ lb/hr} * 8760 \text{ hr/yr}}{2000 \text{ lb/ton}} = 0.65 \text{ ton/yr before control}$$

The control device is rated at 99% efficiency for sulfuric acid >20 microns and 95% overall:

$$0.65 \text{ ton/yr} * 5\% \text{ emitted} = 0.03 \text{ ton/yr after control}$$

The following calculations determine the emission limit under 326 IAC 6-3-2:

$$E = 4.1 * (0.3 ^ {0.67}) = 1.83 \text{ lb/hr (will comply)}$$
$$1.83 \text{ lb/hr} * 8760 \text{ hr/yr} / 2000 \text{ lb/ton} = 8.02 \text{ ton/yr}$$

The control device is not required to comply with this limit.